

1 CLAIMS:-

2  
3 1. A device (10) for transdermally delivering fentanyl by  
4 electrotransport, the device including a donor reservoir (26) containing the  
5 fentanyl in a form to be delivered by electrotransport, a counter reservoir (28),  
6 a source of electrical power (32) electrically connected to the reservoirs  
7 (26,28) and a control circuit (19,40) for controlling magnitude and timing of  
8 applied electrotransport current, the device (10) characterized by:

9 the reservoirs (26,28), the power source (32) and the control circuit  
10 (19,40) being effective to deliver by electrotransport about 20  $\mu\text{g}$  to about  
11 60  $\mu\text{g}$  of fentanyl over a delivery period of up to about 20 minutes.

12 2. The device of claim 1, wherein the device (10) delivers about  
13 35  $\mu\text{g}$  to about 45  $\mu\text{g}$  of fentanyl over a delivery period of about 5 to 15  
14 minutes.

15 3. The device of claim 1, wherein the device (10) delivers about  
16 40  $\mu\text{g}$  of fentanyl over the delivery period.

17 4. The device of claim 1, wherein the device (10) is used to treat  
18 less severe pain and the device (10) delivers about 20  $\mu\text{g}$  to about 30  $\mu\text{g}$  of  
19 fentanyl over the delivery period.

20 5. The device of claim 1, wherein the delivery period is about  
21 10 minutes.

22 6. The device of claim 1, the device being effective to deliver up to  
23 about 100 additional 20  $\mu\text{g}$  to 60  $\mu\text{g}$  doses of fentanyl by electrotransport over  
24 one or more subsequent delivery periods, each delivery period being of up to  
25 about 20 minutes duration.

26 7. The device of claim 1, wherein the donor reservoir (26)  
27 comprises a fentanyl salt formulation.

28 8. The device of claim 7, wherein the fentanyl salt comprises about  
29 1.9 to 2.0 wt% of the formulation.

1           9. The device of claim 8, wherein the fentanyl salt is fentanyl  
2 hydrochloride.

3           10. The device of claim 1, wherein the donor reservoir (26)  
4 comprises polyvinyl alcohol.

5           11. A device (10) for transdermally delivering sufentanil by  
6 electrotransport, the device including a donor reservoir (26) containing the  
7 sufentanil in a form to be delivered by electrotransport, a counter reservoir  
8 (28), a source of electrical power (32) electrically connected to the reservoirs  
9 (26,28) and a control circuit (19,40) for controlling magnitude and timing of  
10 applied electrotransport current, the device (10) characterized by:

11           the reservoirs (26,28), the power source (32) and the control circuit  
12 (19,40) being effective to deliver by electrotransport about 2.3  $\mu\text{g}$  to about  
13 7.0  $\mu\text{g}$  of sufentanil over a delivery period of up to about 20 minutes.

14           12. The device of claim 11, wherein the device (10) delivers  
15 about 4  $\mu\text{g}$  to about 5.5  $\mu\text{g}$  of sufentanil over a delivery period of about  
16 5 to 15 minutes.

17           13. The device of claim 11, wherein the device (10) delivers about  
18 4.7  $\mu\text{g}$  of sufentanil over the delivery period.

19           14. The device of claim 11, wherein the device (10) is used to treat  
20 less severe pain and the device (10) delivers about 2.3  $\mu\text{g}$  to about 3.5  $\mu\text{g}$  of  
21 sufentanil over the delivery period.

22           15. The device of claim 11, wherein the delivery period is about  
23 10 minutes.

24           16. The device of claim 11, the device being effective to deliver up  
25 to about 100 additional 2.3  $\mu\text{g}$  to 7.0  $\mu\text{g}$  doses of sufentanil by  
26 electrotransport over one or more subsequent delivery periods, each delivery  
27 period being of up to about 20 minutes duration.

28           17. The device of claim 11, wherein the donor reservoir (26)  
29 comprises a sufentanil salt formulation.

1           18. The device of claim 11, wherein the sufentanil salt comprises  
2    about 1.9 to 2.0 wt% of the formulation.

3           19.     The device of claim 18, wherein the sufentanil salt is sufentanil  
4     hydrochloride.

5           20.    The device of claim 11, wherein the donor reservoir (26)  
6   comprises polyvinyl alcohol.